

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,872,523 B1
APPLICATION NO. : 09/580797
DATED : March 29, 2005
INVENTOR(S) : Peter C. Iwen, Steven H. Hinrichs and Travis Henry

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 1, line 52: with invasive disease. Early recognition of invasive fungal
Column 2, line 48: *Aspergillus fumigatus*, *Aspergillus flavus*, *Pseudallescheria*
Column 2, line 61: tained in the sample; b) adding two known oligonucleotide
Column 3, line 18: probes are used in step (d each being connection to (a) a
Column 3, line 24: *Penicillium* spp., having the nucleotide sequence of (SEQ
Column 3, line 63: is separated from sequences with which it is immediately
Column 3, line 64: contiguous (in the 5' and 3' directions) in the naturally
Column 4, line 42: homology is set forth below (Sambrook et al., Molecular
Column 5, line 38: or similar activity to yield a primer extension product. The
Column 5, line 44: plate to prime the synthesis of the desired extension
Column 5, line 45: product, that is, to be able to anneal with the desired template
Column 5, line 50: an exact complement of the desired template. For example,
Column 6, line 46: I. Preparation of Nucleic Acid Molecules and Primers
Column 6, line 64: Inc., Valencia, CA) and protocols for crude cell lysates as
Column 7, line 16: used according to methods known in the art, such as the
Column 7, line 17: polymerase chain reaction (PCR) method.
Column 7, line 22: In accordance with the present invention, nucleic acid
Column 7, line 40: cDNA, genomic DNA, RNA, and fragments thereof which
Column 8, line 11: fungi is DNA sequence analysis, however, the methodology
Column 8, line 27: either the pathogenic nucleic acid sequence, the
Column 8, line 40: e) using PCR involving one or more primer-based
Column 9, line 68: et al. were made to optimize the amplification procedure
Column 10, line 26: purified and ligated into the PCR 2.1 plasmid vector using
Column 10, line 28: Diego, CA. Competent INV F' One Shot cells were
Column 11, line 5: Sequence Analysis
Column 11, line 36: Sequence Analysis of *Aspergillus* specimens was per-
Column 12, line 15 of text under table: that both single nucleotide differences and short
lengths of
Column 15, line 60: Abbreviations: ATCC, American Type Culture Collection; IMI,
Invasive Mold Infections (UMNC); a As compared to *A. fumigatus* ATCC 36607. b Se-
quence deposited into GenBank as part of this study. C Reference strain sequenced but
not deposited into GenBank.
Column 16, line 11: infectious molds from clinical samples. The number of cases
Column 16, line 60: 1 and 2 regions (21). Gaskell et al. investigated sequence
Column 18, line 24: results available within 48 h, confirmed the value of this
Column 18, line 63: facilitates the species specific identification of fungi. Addi-
Column 29, line 1 of text following addendum 1: References

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 61, line 1: What is claimed is:
Column 61, line 4: method comprising the following steps:
Column 61, line 5: a) extracting nucleic acid material from fungi contained in
Column 61, line 9: ers consisting of SEQ ID NO:1 and the other primer
Column 61, line 10: consisting of SEQ ID NO:2, said primers bracketing a
Column 61, line 14: *Aspergillus terrus* (SEQ ID NO:4), *Aspergillus niger*
Column 61, line 15: (SEQ ID NO:5), *Aspergillus nigrulans* (SEQ ID NO:6),
Column 61, line 20: a portion of the hypervariable region bracketed by said
Column 61, line 21: primers, said probes being selected from the group con-
Column 61, line 22: sisting of at least 15-25 contiguous nucleotides of SEQ
Column 61, line 26: one of said fungal species from said group, to deter-
Column 61, line 27: mine whether said fungal species identified by each
Column 61, line 30: procedure in the polymerase chain reaction.
Column 61, line 39: different signal moiety or (b) a moiety which allows separ-
Column 61, line 40: ation of said probes.
Column 61, line 49: nucleic acid sequences of SEQ ID NOs: 3-8 to determine
Column 61, line 58: (SEQ ID NO: 5), *Aspergillus nidulans* (SEQ ID NO: 6),
Column 61, line 59: *Aspergillus fumigatus* (SEQ ID NO: 7), and *Aspergillus*
Column 61, line 60: *flavus* (SEQ ID NO: 8), said method comprising the step of:
Column 62, line 2: sample and amplifying said fungal nucleic acid with polymerase chain
Column 62, line 3: reaction using a primer set consisting of SEQ ID NO:
Column 62, line 7: c) comparing said restriction mapping patterns of said
Column 62, line 13: 7. A method for determining which *Aspergillus* species
Column 62, line 18: *flavus* (SEQ ID NO: 8), is present in a biological sample, said
Column 62, line 25: ID NOs: 3-8; and
Column 62, line 26: c) analyzing said permeabilized tissue sections with said
Column 62, line 30: 8. A universal primer set for amplification of a target
Column 62, line 34: GTATCCCTACCTGATCCGAGG (SEQ ID NO: 2).
Column 62, line 37: a) a universal primer set, said primer set consisting of the
Column 62, line 38: sequence of SEQ ID NO: 1 and SEQ ID NO: 2;
Column 62, line 44: d) means for contacting said released DNA with a primer
Column 62, line 53: apparatus for performing gel electrophoresis of said ampli-
Column 62, line 55: 12. A kit as claimed in claim 9, further comprising nucleic

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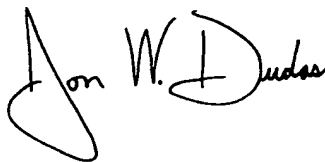
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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 62, line 56: acids having sequences of SEQ ID NOs: 3-8.

Signed and Sealed this

Eighth Day of August, 2006

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large, looped initial "J" and a distinct "D" at the end.

JON W. DUDAS
Director of the United States Patent and Trademark Office